

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
30 June 2005 (30.06.2005)

PCT

(10) International Publication Number  
**WO 2005/059567 A1**

(51) International Patent Classification<sup>7</sup>: **G01N 35/00**,  
B25J 11/00

(21) International Application Number:  
PCT/GB2004/005135

(22) International Filing Date: 9 December 2004 (09.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
0328901.4 12 December 2003 (12.12.2003) GB

(71) Applicant (for all designated States except US): **GLAXO GROUP LIMITED** [GB/GB]; Glaxo Wellcome House, Berkeley Avenue, Greenford, Middlesex UB6 0NN (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **HOLDEN, John, Joseph** [GB/GB]; Aitken Scientific Limited, Oxford House, Oxford Road, Thame Oxfordshire OX9 2AH (GB). **STANLEY, Alan, Leslie** [GB/GB]; GlaxoSmithKline, New Frontiers Science Park South, Third Avenue, Harlow

Essex CM19 5AW (GB). **YOUNG, Kenneth, William** [GB/GB]; Warwick Manufacturing Group, International Manufacturing Centre, The University of Warwick, Coventry Warwickshire CV4 7AL (GB). **ZAPIAN BAZ-DRESCH, Rodrigo** [MX/GB]; Warwick Manufacturing Group, International Manufacturing Centre, The University of Warwick, Coventry, Warwickshire CV4 7AL (GB).

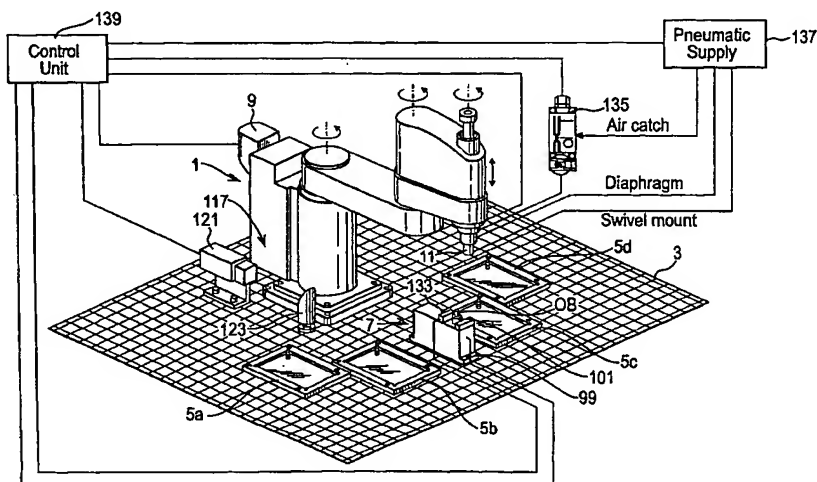
(74) Agent: **WALKER, Ralph, Francis**; GlaxoSmithKline, Corporate Intellectual Property, 980 Great West Road, Brentford, Middlesex TW8 9GS (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,

[Continued on next page]

(54) Title: OBJECT HANDLING SYSTEM AND METHOD



(57) Abstract: An object handling system for and a method of handling objects (OB) from object carriers (21) supporting objects (OB), the handling system comprising : a support platform (3); at least one carrier holder (5a-d) disposed to the support platform (3) and being configured to receive an object carrier (21) supporting objects (OB); at least one analysis station (7) at which objects (OB) are analyzed; an object handler (1) comprising a positioning mechanism (9) operable to provide for positioning in a region above the support platform (3), and a tool assembly (11) attached to the positioning mechanism (9) and being movable thereby, wherein the tool assembly (11) comprises a sensor tool (35) which, in a carrier-sensing mode, is utilized in identifying any object carrier (21) as supported by the at least one carrier holder (5a-d), and a holding tool (37) which, in an object-transfer mode, is utilized to hold an object (OB) at least in transferring the same between the at least one carrier holder (5a-d) and the at least one analysis station (7); and a control unit (139) for controlling operation of the handling system.



ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— with international search report

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*